THREADED FASTENER NUT WITH ANTI-CROSS THREADING RADIUSED FEATURES AND TACTILE FEEDBACK FEATURES

ABSTRACT OF THE DISCLOSURE

A fastener nut is formed with anti-cross threading features that include a rounded or chamfered edge at the entry end to the nut, followed by an unthreaded cylindrical counterbore that extends axially from the entry end to the threaded section of the bore. The rounded or chamfered entry end prevents cross threading and the unthreaded section is of sufficient length to ensure substantially collinear alignment between the threaded fastener and the correspondingly threaded nut before threaded engagement occurs. An optional radiused portion is formed between the unthreaded and threaded sections of the nut to further prevent cross threading. The nut can be a weld nut formed with weld protrusions which enable the nut to be welded to a large structural member before mating engagement with a threaded fastener occurs. The nut can additionally have convex or concave or other tactile feed back features that induce vibration when a large off-angle is being attempted.